

**Chapter 19.74
FLOODPLAIN HAZARD
REGULATIONS**

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19.74.010 Findings.

A. Flood hazard areas of the city are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services,

extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

B. The inundation is caused by the cumulative effect of channel obstructions which increase flood heights and velocities. Uses that are inadequately flood-proofed, elevated or otherwise protected from floodwater also contribute to flood loss.

19.74.020 Purpose of provisions.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions by provisions designed to:

- A. Protect human life and health;
- B. Minimize expenditure of public money for flood-control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazard;
- F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood-blight areas;
- G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. Ensure that those who occupy the areas of special flood hazards assume responsibility for their actions.

19.74.030 Methods of reducing flood losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases of erosion, flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;

D. Controlling, filling, grading, dredging and other development which may increase flood damage; and

E. Preventing or regulating the construction of flood barriers which will divert floodwaters or which may increase flood hazards in other areas.

19.74.040 Areas of special flood hazard.

A. This chapter shall apply to all areas of special flood hazards within the jurisdiction of the city. The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled "Flood Insurance Study, Salt Lake County, Utah, Unincorporated Areas," December 18, 1985, with accompanying Flood Insurance Rate Maps, Flood Boundary-Floodway Maps, and any revisions thereto, are adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file at the department.

B. The director shall obtain, review and reasonably utilize any base flood elevation and floodway data available

from a federal, state or other source, as criteria for requiring that new construction, substantial improvements, or other development in Zone A meet the provisions of sections 19.74.050 and 19.74.150 through 19.74.180. Such other source base flood elevation data shall be more specifically provided by the developer as determined by a registered professional engineer for subdivision and other proposed developments which contain at least 50 lots or five acres (whichever is less).

19.74.050 Floodways.

Located within areas of special flood hazard established in section 19.74.040 are areas designated as "floodways." Since a floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Encroachments, including fill, new construction, substantial improvements, placement of manufactured homes, and other developments, are prohibited unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. If subsection A of this section is satisfied, all new construction and substantial improvements and placement of manufactured homes shall comply with all applicable flood-hazard reduction provisions of sections 19.74.100 through 19.74.180.

19.74.060 Relationship of floodplain hazard regulations to zones.

The floodplain hazard regulations of this chapter shall be supplemental to, and not in lieu of, the applicable zoning

provisions of the zone in which the land is located, and/or general provisions under this title, as amended. Property located within such areas of special flood hazard shall be developed only in conformance with the provisions set forth herein. In cases of conflict between such zone classifications and the floodplain hazard regulations, the most restrictive provisions shall govern. Permitted and conditional uses permitted in the areas of special flood hazard shall be developed only in conformance with the provisions set forth herein. All uses involving development, as defined in this chapter, shall further meet the supplemental conditions and standards set forth in this chapter.

19.74.070 Conditional use permits required.

A conditional use permit, if required by this title, shall be obtained prior to special flood hazard area approval under section 19.74.080. Prior to issuance of a conditional use permit, the planning commission shall insure that the requirements of this chapter are met.

19.74.080 Construction or development—Special approval required.

A. Approval by the department shall be obtained before construction or development begins within an area of special flood hazard established in section 19.74.040. Application for such approval shall be made on forms furnished by the department, and may include, without limitation: Plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing.

B. The following specific information is required:

1. Elevation in relation to mean sea level of the lowest floor, including basement, of all structures except those located in Zone A where base flood elevation data was not available nor required by this chapter;

2. Elevation in relation to mean sea level to which any structure has been flood-proofed except those located in Zone A where base flood elevation data was not available nor required by this chapter;

3. Certification by a registered professional engineer or architect that the flood-proofing methods for any nonresidential structure meet the flood-proofing criteria in sections 19.74.150 through 19.74.180; and

4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

19.74.090 Construction or development—Duties of the director.

The community development director shall be responsible to:

A. Review Applications.

1. Review all applications to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of section 19.74.050 are met,

2. Review all applications to determine that the requirements of this chapter have been satisfied,

3. Review all applications to determine that all necessary permits have been obtained from federal, state or local governmental agencies from which prior approval is required;

B. Maintain Information File.

1. Obtain and record the actual

elevation provided by the developer (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures except those located in Zone A where base flood elevation data was not available nor required by this chapter,

2. For all new or substantially improved flood-proofed structures except those located in Zone A where base flood elevation data was not available nor required by this chapter:

a. Verify and record the actual elevation provided by the developer (in relation to mean sea level), and

b. Maintain the flood-proofing certifications required in subsection 19.74.080(B)(3), and

3. Maintain for public inspection all records pertaining to the provisions of this chapter;

C. Verify Alteration of Watercourses. Verify that:

1. A permit has been obtained from the Salt Lake County division of flood control for any alteration of a watercourse identified as a flood-control facility this code,

2. A permit has been obtained from the State Engineer for alteration of a natural stream channel,

3. Maintenance is provided for within the altered or relocated portion of such watercourse so the flood-carrying capacity is not diminished, and

4. Notification has been made to cities adjacent to the watercourse and to the State Division of Comprehensive Emergency Management, prior to any alteration or relocation of a watercourse, and evidence of such notification has been submitted to the Federal Emergency Management Agency.

19.74.100 Protective standards generally.

In all areas of special flood hazards, the following standards, set out in sections 19.74.110 through 19.74.140, are required.

19.74.110 Anchoring.

A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

B. All manufactured homes shall be installed using methods and practices which minimize flood damage. For the purpose of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, over-the-top and frame ties to ground anchors. This requirement is in addition to applicable anchoring requirements for resisting wind forces.

19.74.120 Construction materials and methods.

A. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

B. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage. Fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing

for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

19.74.130 Utilities.

A. All new and replacement water-supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

B. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems, and discharge from the systems into floodwaters; and

C. On-site waste-disposal systems shall be located to avoid impairment to them or contamination from them during the flooding.

19.74.140 Subdivision proposals.

A. All subdivision proposals shall minimize flood damage;

B. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical and water systems, located and constructed to minimize flood damage; and

C. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

19.74.150 Specific protective standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in section 19.74.040, compliance with the provisions specified in sections 19.74.160 through 19.74.180 is required.

19.74.160 Residential construction.

New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot above the base flood elevation.

19.74.170 Nonresidential construction.

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to a minimum of one foot above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

A. Be flood-proofed so that below one foot above the base flood level the structure is watertight, with walls substantially impermeable to the passage of water;

B. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

C. Provide that where a nonresidential structure is intended to be made watertight below the base flood level:

1. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for

meeting the applicable provisions of this section, and

2. A record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are flood-proofed shall be provided to the director of the community development department as set forth in section 19.74.090(B)(2).

19.74.180 Manufactured homes.

All manufactured homes to be placed or substantially improved shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is a minimum of one foot above the base flood elevation and is securely anchored to an adequately anchored foundation system in accordance with section 19.74.110.

19.74.190 Variances and appeal procedures.

The board of adjustment shall hear and decide all appeals and requests for variances from the requirements of this chapter. The following conditions shall apply in addition to the provisions of chapter 19.92, "Board of Adjustment":

A. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below one foot above the base level, providing the board of adjustment has considered all technical evaluations, all relevant factors, and standards specified in other sections of this chapter, providing the following items have been considered:

1. The danger that materials may be swept onto other land to the injury of others;

2. The danger to life and property due to flooding or erosion damage;

3. The susceptibility of the proposed facility and its contents to flood damage, and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location, where applicable;

6. The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;

7. The compatibility of the proposed use with the existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

B. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the Utah State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

C. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

D. Variances shall only be issued

upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

E. Variances shall only be issued upon:

1. A showing of good and sufficient cause;

2. A determination that failure to grant the variance would result in exceptional and undue hardship to the applicant; and

3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, as identified in subsection 19.74.190(A)(1), or conflict with existing local laws or ordinances.

F. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below one foot above the base flood elevation and that the cost of flood insurance will be commensurate with the increased flood risk resulting from the reduced lowest floor elevation.

G. The board of adjustment shall maintain the record of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

19.74.200 Warning and liability disclaimer.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such

areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

19.74.210 Definitions.

As used in this chapter:

A. "Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this title.

B. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities

C. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.